



Lake Erie Harmful Algal Bloom Bulletin

04 September, 2018, Bulletin 22

Analysis

The *Microcystis* cyanobacteria bloom continues in the western basin of Lake Erie. Recent satellite imagery (9/3) shows the bloom extending north along the Michigan coast to Point Mouillee State Game Area, east along the Ohio coast to Sandusky Bay, and through the Bass Islands extending up to 15 miles east of Pelee Island. Calm winds observed over the weekend (8/31-9/3) may have promoted scum formation of *Microcystis* concentrations. Toxin concentrations are present at most sampling sites but are below the recreational threshold. *Keep pets and yourself out of the water in areas where scum is forming.* The persistent cyanobacteria bloom in Sandusky Bay continues.

Forecasts

Winds (3-8 kn) forecast today and tomorrow (9/4-5) will promote scum formation where surface *Microcystis* concentrations are greatest. Winds will promote the eastward transport of *Microcystis* concentrations from the Michigan coast and northeastward transport of *Microcystis* concentrations around the Bass Islands and Pelee Island today through Friday (9/4-7). --Davis, Lalime

Additional Resources

To find a safe place for recreation, visit the Ohio DOH "BeachGuard" site: <http://publicapps.odh.ohio.gov/beachguardpublic/>

Ohio EPA's site on harmful algal blooms: <http://epa.ohio.gov/HAB-Algae>

NOAA's GLERL provides additional HAB data here: http://www.glerl.noaa.gov/res/HABs_and_Hypoxia

The images below are "GeoPDF". Please visit <https://go.usa.gov/xReTC> for instructions on viewing longitude and latitude.

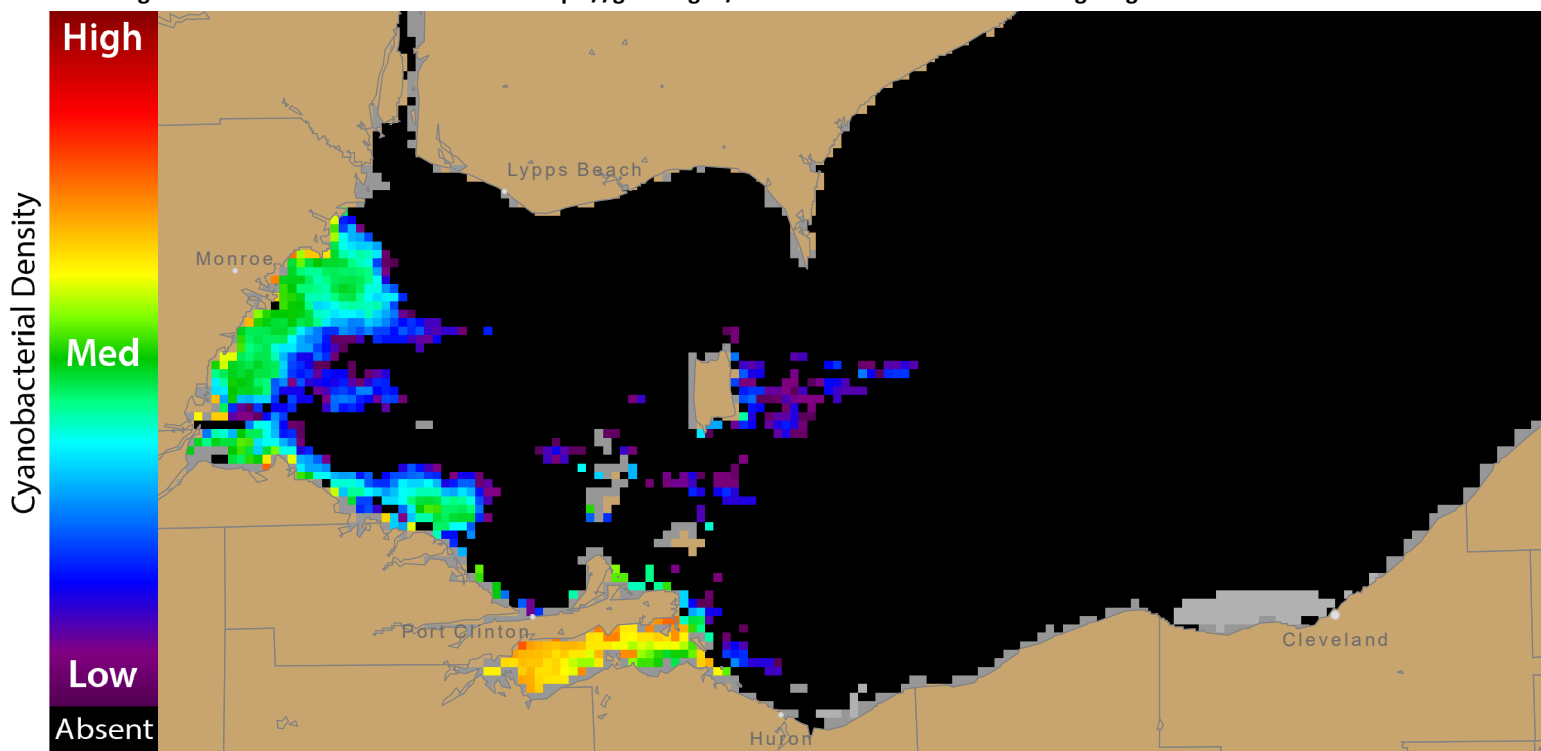


Figure 1. Cyanobacterial Index from NASA MODIS-Terra data collected 03 September, 2018 at 11:07 EST. Grey indicates clouds or missing data. The estimated threshold for cyanobacteria detection is 20,000 cells/mL.

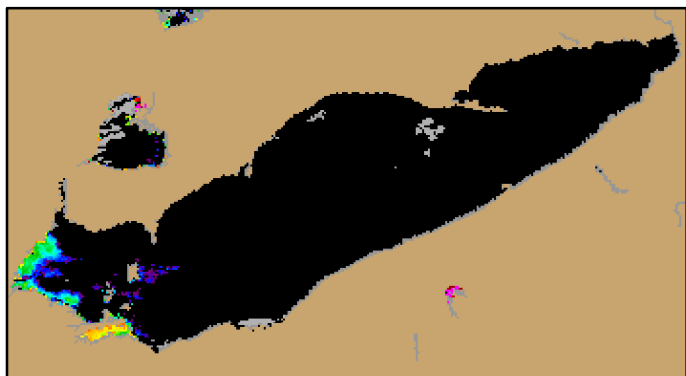
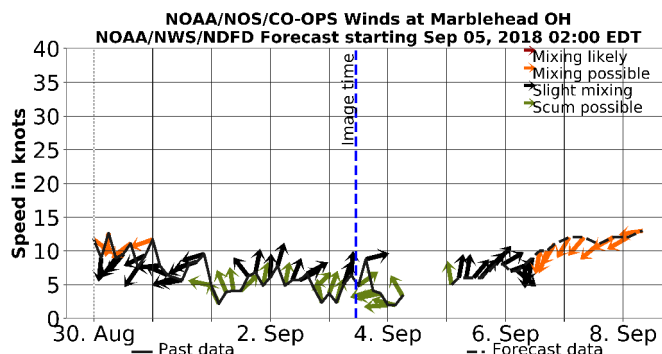


Figure 2. Cyanobacterial Index from NASA MODIS-Terra data collected 03 September, 2018 at 11:07.



Wind speed and direction from Marblehead, OH. Blooms mix through the water column at wind speeds greater than 15 knots (or 7.7 m/s).

For more information and to subscribe to this bulletin, go to: <https://tidesandcurrents.noaa.gov/hab/lakeerie.html>

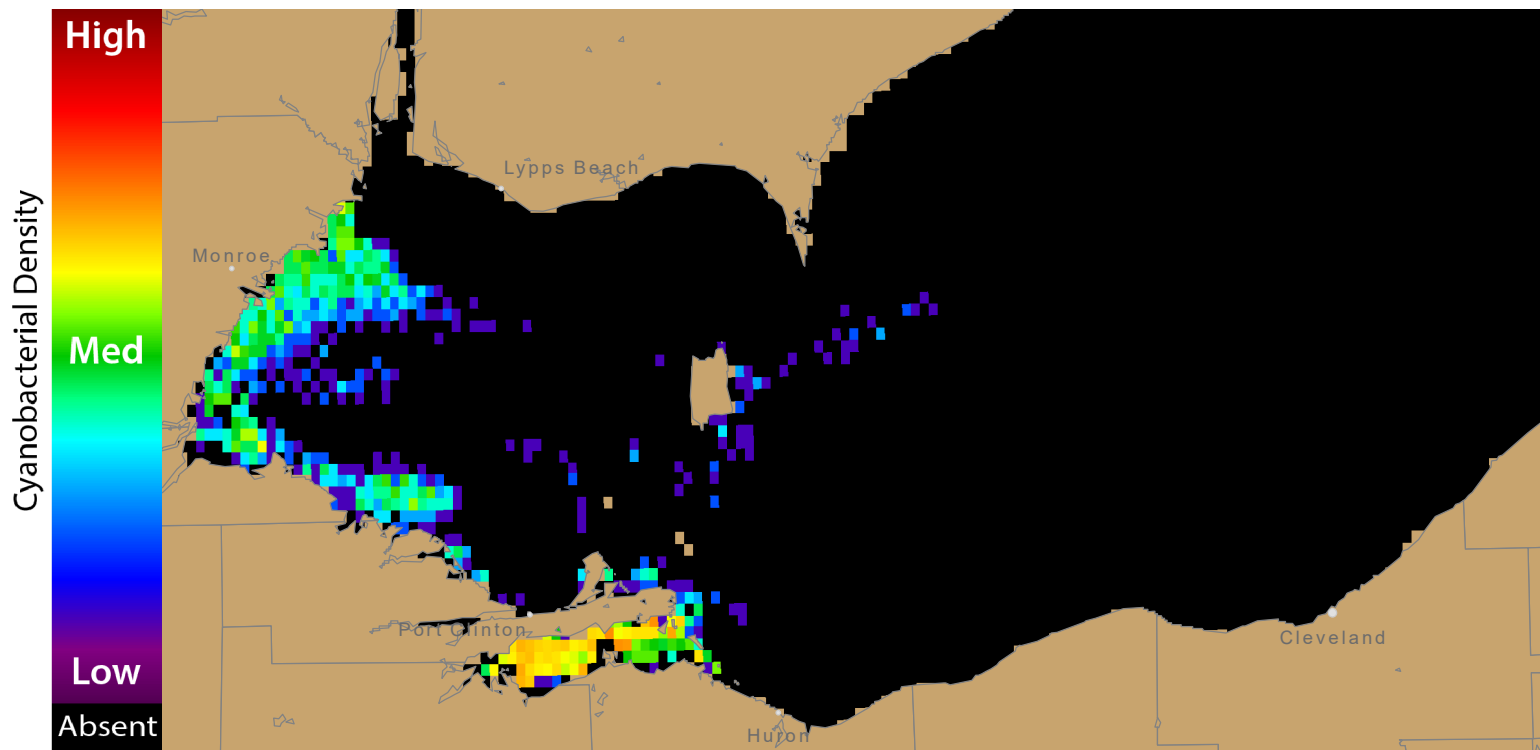


Figure 3. Nowcast position of bloom for 04 September, 2018 using LEOFS modelled currents to move the bloom from the 03 September,

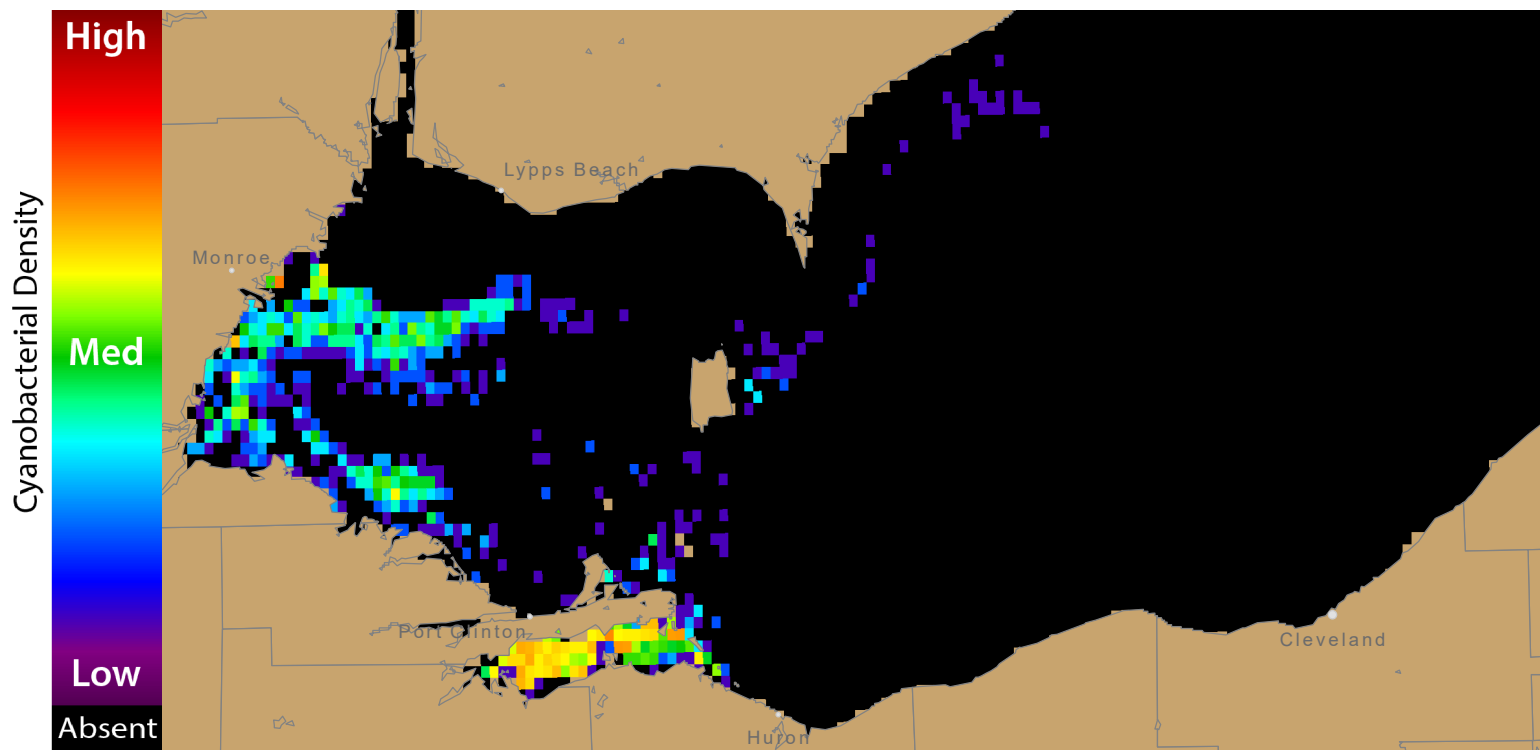
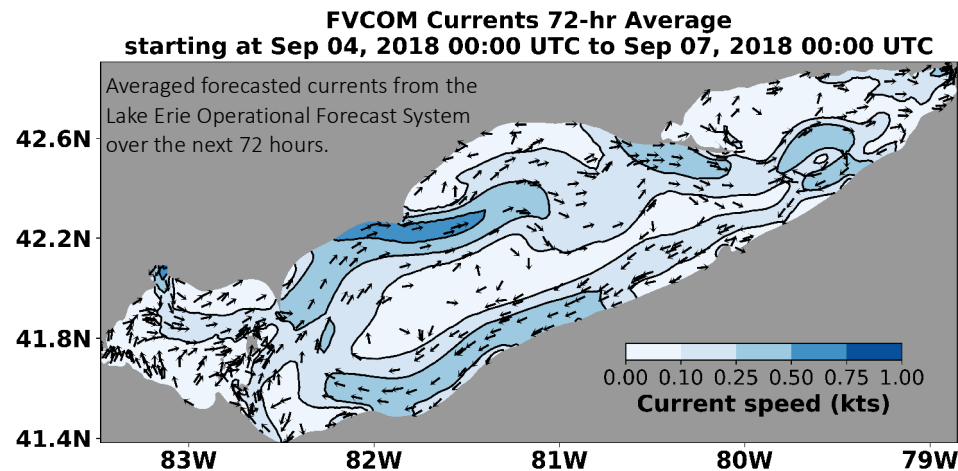


Figure 4. Forecast position of bloom for 07 September, 2018 using LEOFS modelled currents to move the bloom from the 03 September,



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